

This listing of the claims replaces any and all prior versions and listings of claims in the application:

LISTING OF THE CLAIMS

1. (Currently amended) A biocompatible composition comprising a plurality of polymer particles having a therapeutic agent and a buoyancy agent contained therein, wherein the buoyancy agent is a gas or oil and wherein the composition is controllably buoyant within the cerebrospinal fluid, ~~and~~ further wherein each of the polymer particles is 1-100 μm in size, and further wherein the biocompatible composition is suitable for administration to the cerebrospinal fluid of a subject.
2. (Original) The composition of claim 1, wherein the polymer is biodegradable.
3. (Cancelled).
4. (Original) The composition of claim 1, wherein said buoyancy agent has a specific gravity of between about 1.0063 to about 1.0075.
5. (Original) The composition of claim 1, wherein said buoyancy agent has a specific gravity greater than about 1.0063
6. (Original) The composition of claim 1, wherein said buoyancy agent has a specific gravity less than about 1.0063
7. (Original) The composition of claim 1, wherein said therapeutic agent is a neuroprotective agent and said composition is administered to a subject having a central nervous system disorder.

8. (Original) The composition of claim 1, wherein said buoyancy agent is a mixture of oxygen and nitrogen.
9. (Original) The composition of claim 1, wherein said buoyancy agent is a hydrofluorocarbon.
10. (Previously presented) The composition of claim 1, wherein said buoyancy agent is a gas selected from the group consisting of nitrogen, argon, carbon dioxide, helium, and xenon.
11. (Previously presented) The composition of claim 1, wherein said therapeutic agent is selected from the group consisting of inosine, citicholine, superoxide dismutase (SOD), and dextrorphan.
12. (Previously presented) A composition comprising a plurality of first polymeric particles having a first therapeutic agent and a buoyancy agent contained therein, and a plurality of second polymeric particles comprising a second therapeutic agent and a buoyancy agent contained therein, wherein the buoyancy agents are selected from gases and oils, further wherein the composition is controllably buoyant within the cerebrospinal fluid.
13. (Previously presented) The composition of claim 12, wherein the ratio of said first polymeric particles and said second polymeric particles is 50:50.
14. (Previously presented) The composition of claim 12, wherein the ratio of said first polymeric particles and said second polymeric particles is 60:40.

15. (Previously presented) The composition of claim 12, wherein the ratio of said first polymeric particles and said second polymeric particles is 40:60.

16. (Previously presented) The composition of claim 2, wherein said biodegradable polymer is a naturally derived polymer selected from the group consisting of albumin, alginate, cellulose, collagen, fibrin, gelatin, and polysaccharides.

17. (Previously presented) The composition of claim 2, wherein said biodegradable polymer is a synthetic polymer selected from the group consisting of polyesters, polyethylene glycol, poloxomers, polyanhydrides, polyamides, polyurethanes, and pluronics.

18. (Original) The composition of claim 17, wherein said synthetic polymer is poly(lactide-co-glycolide).

19. (Previously presented) The composition of claim 1, wherein said therapeutic agent is selected from the group consisting of L-dopa, dopamine, carbidopa, choline, acetylcholine, cholinergic neuronotropic agents, gangliosides, nerve growth enhancing agents, living cells, enzymes, antipsychotropic agents, antidepressants, excitatory amino acid antagonist or agonist, antiepileptic medications, and combinations thereof as well as antioxidants, nonsteroidal anti-inflammatory drugs (NSAIDS), steroidal anti-inflammatory agents, calcium channel blockers, N-methyl-D-aspartate (NMDA) antagonists, inosine, citicholine, superoxide dismutase, dextrorphan, aspirin, and tetramethylpyrazine.

20. (Previously presented) The composition of claim 1, wherein said therapeutic agent is a cancer agent selected from the group consisting of vinca alkaloids and other plant products, cytostatic drugs, cytotoxic drugs, hormones, alkylating agents, immunomodulators, hematological agents, radiopharmaceuticals, antibodies, antiandrogens, and epidermals.

21. (Previously presented) The composition of claim 7, wherein said central nervous system disorder is selected from the group consisting of cancer, Parkinson's disease, Alzheimer's dementia, Huntington's disease, epilepsy, amyotrophic lateral sclerosis, multiple sclerosis, trauma, stroke, traumatic brain injury, depression, spinal cord injury, and pain management.

22. (Previously presented) A method for administering a therapeutic agent within the central nervous system of a subject, the method comprising intrathecally administering a composition to the central nervous system of said subject, wherein said composition comprises a plurality of biodegradable polymer particles having a therapeutic agent and a buoyancy agent contained therein, wherein the buoyancy agent is a gas or an oil, and wherein the composition is controllably buoyant within the cerebrospinal fluid.

23. (Original) The method of claim 22, wherein said subject is diagnosed with a central nervous system disorder.

24. (Original) The method of claim 23, wherein said composition is in the form of a plurality of spherical particles from about 1 to about 25 μm in diameter.

25. (Previously presented) The method of claim 23, wherein the therapeutic agent is selected from the group consisting of L-dopa, dopamine, carbidopa, choline, acetyl choline, cholinergic neuronotropic agents, gangliosides, nerve growth enhancing agents, living cells, enzymes, antipsychotropic agents, antidepressants, excitatory amino acid antagonist or agonist, antiepileptic medications, and combinations thereof as well as antioxidants, nonsteroidal anti-inflammatory drugs (NSAIDS), steroidal anti-inflammatory agents, calcium channel blockers, N-methyl-D-aspartate (NMDA) antagonists, inosine, citicholine, superoxide dismutase, dextrorphan, aspirin, and tetramethylpyrazine.

26. (Previously presented) The method of claim 23 wherein the therapeutic agent is a cancer agent selected from the group consisting of vinca alkaloids and other plant products,

cytostatic drugs, cytotoxic drugs, hormones, alkylating agents, immunomodulators, hematological agents, radiopharmaceuticals, antibodies, antiandrogens, and epidermals.

27. (Previously presented) The method of claim 23, wherein the intrathecal administration occurs directly into the cerebrospinal fluid of the subject.

28. (Previously presented) The method of claim 23, wherein the central nervous system disorder is selected from the group consisting of cancer, Parkinson's disease, Alzheimer's dementia, Huntington's disease, epilepsy, amyotrophic lateral sclerosis, multiple sclerosis, trauma, stroke, traumatic brain injury, depression, spinal cord injury, and pain management.

29. (Previously presented) The method of claim 23, wherein said biodegradable polymer is a naturally derived polymer selected from the group consisting of albumin, alginate, cellulose, collagen, fibrin, gelatin, and polysaccharides.

30. (Original) The method of claim 23, wherein said biodegradable polymer is a synthetic polymer selected from the group consisting of polyesters, polyethylene glycol, poloxomers, polyanhydrides, and pluronics.

31. (Original) The method of claim 23, wherein said synthetic polymer is poly(lactide-co-glycolide).

32. (Original) The composition of claim 12, wherein said first therapeutic agent is inosine and said second therapeutic agent is citicholine.

33. (Previously presented) The composition of claim 1, wherein said buoyancy agent is selected from the group consisting of fish oil, vegetable oil, and vitamin E oil.

34. (Previously presented) The composition of claim 1, wherein said therapeutic agent is an antibiotic and said composition is administered to a subject needing antibiotic treatment.
35. (Previously presented) The method of claim 22, wherein said therapeutic agent is an antibiotic and said subject is in need of antibiotic treatment.
36. (Previously presented) The composition of claim 19, wherein said living cells are selected from bone marrow cells and fetal neural tissue or stem cells.
37. (Previously presented) The composition of claim 20, wherein said hormones are selected from estrogens and anti-estrogens.
38. (Previously presented) The composition of claim 20, wherein said immunomodulators are selected from immunostimulators and immunosuppressives.
39. (Previously presented) The method of claim 25, wherein said living cells are selected from bone marrow cells and fetal neural tissue or stem cells.
40. (Previously presented) The method of claim 26 wherein said hormones are selected from estrogens and anti-estrogens.
41. (Previously presented) The method of claim 26 wherein said immunomodulators are selected from immunostimulators and immunosuppressives.